

WHAT IS CLAIMED IS:

1. An information-processing device comprising:

a crossbar board-back panel assembly comprising a plurality of crossbar-boards each having a switching element mounted thereon, and a plurality of back panels detachably connected electrically and mechanically to different sides of each of said crossbar-boards,

a plurality of motherboards detachably connected electrically and mechanically to each of said back panels, each of the plurality of the motherboards having an information-processing semiconductor element mounted thereon, wherein

each of said back panels is formed by a plurality of strip panels arranged at positions corresponding to said crossbar-boards, said motherboards crossing the plurality of the strip panels, and

said strip panels are supplied with different voltages.

2. An information-processing device comprising:

a crossbar board-back panel assembly comprising a plurality of rectangular crossbar-boards arranged in parallel, and two opposing back panels detachably connected electrically and mechanically to longitudinal sides of each of said crossbar-boards; and

a plurality of motherboards detachably connected electrically and mechanically to each of said two opposing back panels, each of the plurality of the motherboards having an information-processing semiconductor element mounted thereon,

wherein said two opposing back panels are formed by a plurality of pairs of two opposing strip panels arranged at positions corresponding to each of said rectangular crossbar-boards, and

said crossbar board-back panel assembly includes a plurality of crossbar board-strip panel assemblies piled up on each other, each of said crossbar board-strip panel assemblies comprising one of said rectangular crossbar-boards, and one of said pairs of said two opposing strip panels detachably connected electrically and mechanically to the longitudinal sides of the one of said rectangular crossbar-boards.

3. The information-processing device as claimed in claim 2, wherein said crossbar board-back panel assembly further comprises a guide pole arranged upright so that said crossbar board-strip panel assemblies are piled up on each other with a hole formed in each of said rectangular crossbar-boards being passed through by said guide pole, and

said crossbar board-strip panel assemblies are supplied with a voltage via said guide poles.

4. The information-processing device as claimed in claim 2, wherein said crossbar board-back panel assembly further comprises guide rails arranged horizontally so that said crossbar board-strip panel assemblies are piled up on each other with upper and under edges of each of said pairs of said two opposing strip panels being inserted into said guide rails, and

said crossbar board-strip panel assemblies are supplied with a voltage via said guide rails.

5. An information-processing device comprising:

a crossbar board-back panel assembly comprising a plurality of crossbar-boards each having a switching element mounted thereon, and a plurality of back panels detachably connected electrically and mechanically to different sides of each of said crossbar-boards;

a plurality of motherboards detachably connected electrically and mechanically to each of said back panels, each of the plurality of the motherboards having an information-processing semiconductor element mounted thereon; and

hollow heat-radiation components each placed between said crossbar-boards, wherein an air moves through inside of said hollow heat-radiation components.

6. An information-processing device comprising:

at least one crossbar-board having a switching element mounted thereon;

a plurality of back panels detachably connected electrically and mechanically to different sides of said crossbar-board; and

at least one motherboard detachably connected electrically and mechanically to each of said back panels, the motherboard having an information-processing semiconductor element mounted thereon, wherein each of said back panels comprises a grid-like frame and smaller panels than each of said back panels, the smaller panels arranged in the grid-like frame.

7. The information-processing device as claimed in claim 6, wherein said smaller panels are supplied with a voltage via said grid-like frame.

8. An information-processing device comprising:

at least one crossbar-board having a switching element mounted thereon;

a plurality of back panels detachably connected electrically and mechanically to different sides of said crossbar-board; and

at least one motherboard detachably connected electrically and mechanically to each of said back panels, the motherboard having an information-processing semiconductor element mounted thereon, wherein each of said back panels comprises smaller panels than each of said back panels, the smaller panels detachably connected electrically and mechanically to each other.

9. An information-processing device comprising:  
two grid-like frames opposing each other;  
a plurality of crossbar-boards fixed between said two grid-like frames;  
at least one motherboard fixed to each of said two grid-like frames, the motherboard having an information-processing semiconductor element mounted thereon; and  
a flexible connector connecting said motherboard and each of said crossbar-boards.

10. An information-processing device comprising:  
a crossbar board-back panel assembly comprising a plurality of crossbar-boards arranged in parallel, and a plurality of back panels detachably connected electrically and mechanically to different sides of each of said crossbar-boards; and  
a plurality of motherboards detachably connected electrically and mechanically to each of said back panels, each of the plurality of the motherboards having an information-processing semiconductor element mounted thereon,  
wherein said crossbar board-back panel assembly includes a caster provided on the bottom thereof.

11. A server, comprising:  
a body having a room to contain a crossbar board-back panel assembly comprising a plurality of crossbar-boards arranged in parallel, and a plurality of back panels detachably connected electrically and mechanically to different sides of each of said crossbar-boards, wherein the crossbar board-back panel assembly includes a caster provided on the bottom thereof, the crossbar board-back panel assembly being contained in said room.